

Steelcase, *a steward of the environment*

"Nearly a hundred years ago, we made a promise that we would act as stewards of the environment. Since then, we've been dedicated to serving our customers in a way that never becomes a disservice to our planet. We believe that, big or small, every action that safeguards and restores the environment is significant. By inspiring lasting, meaningful action, we can all benefit from lasting, meaningful results."

Jim Hackett, President and CEO (Steelcase Environmental Report 2006)

Steelcase has a huge environmental responsibility. All European Steelcase factory units are therefore ISO 14001, EMAS II (only in Germany) and LEED (only in North America) certified.

With the objective to globally reduce its environmental footprint by 25% in 2012, Steelcase has been intensively working to achieve significant results (2006 *Environmental report*):

- Reduction by 41% of global greenhouse gas emissions since 2001 while increase of sales over the last three years.
- 95% reduction in global VOC emissions during the last five years as a result of changes in finishing technologies, lean processes and plant consolidations. In 2005, VOC emissions amounted to less than 60 tons.
- Cut down by 54% of water consumption as a result of technology improvements and production efficiencies such as water treatment and recycling efforts.
- Decrease by 46% of global energy consumption over the past five years.
- Contribution of lean manufacturing processes, powder coat finishing operations and improved steel utilization and recycling to the significant reduction of hazardous waste and waste sent to landfills.



Life Cycle thinking

When it comes to products or solutions, each new one is created with the reduction of its environmental impact in mind. In other words, Steelcase “eco-designs” products that will generate as less pollution as possible from one life cycle to another:

Materials stage

- use of recycled materials
- strict selection of Steelcase suppliers
- Steelcase has a multi-site PEFC certification (concerning four European sites) ensuring that the wood used in its products has been sourced from environmentally friendly suppliers
- In collaboration with McDonough Braungart Design Chemistry (MBDC), Steelcase looked at the chemistry of all materials and hence selected those that are safe, healthy, and ecologically sound throughout their lifecycle. The selected products contain therefore no hazardous materials (i.e. no Lead, Mercury, Cadmium, Chrome VI, or CFC or HCFC in the foam), no dangerous materials such as PVC, and no hazardous flame retardants such as halogenated flame retardants. We evaluate 19 different human and environmental health criteria.

Production stage

- All clear, feasible and measurable actions including:
 - Reducing CO₂ emissions (air)
 - Reducing volatile organic compound emissions (air)
 - Reducing packaging
 - Reducing and recycling waste
 - Water protection
 - Energy efficiency and reduction
 - Health and Security
- Certification of all production sites

Transport stage

- low number of packaging materials and low volume packaging
- reduced environmental impact during transport
- packaging take-back for recycling

Use stage

- make sure products do not have negative consequences on user
- prolonged lifetime of products
- international warranty

“End of life” stage

- end of life management of products: take back for donation or effective recycling
- fast and easy disassembly
- fully recyclable products

In this respect, Steelcase was the first company in the office furniture industry to apply the expertise of Life Cycle Assessment (LCA) in the design of new products. Approved by the European Union for environmental evaluation, the LCA methodology - the objective of which is to set up a basis for making the right choices during the development process and hence producing cleaner products - relies on the ISO 14044 certification.

The methodology is comprised of 4 successive steps:

- Objective and scope definition as well as inventory analysis
- Data gathering about the five life product stages
- Impact assessment
- Interpretation

The first product to be entirely designed according to the LCA is the award-winning Please™ task chair unveiled in 1998. The environmental performance of the product was improved in 2004.

Transparent communication

Steelcase is also paving the way in the process of transparently and clearly communicating the environmental performance of products. The company is therefore using 3 main declarations:

- The **EPD - Environmental Product Declaration** (according to the objectives of ISO 14025), which is based on the LCA methodology (in accordance with ISO 14044) and which is objective.
- The **PEP - Product Environment Profile**, which is based on ISO 14021, provides information throughout the life cycle of all main current Steelcase products: materials used, percentage of recycled content, manufacturing processes, recyclability...
- The Ecolabels based on ISO 14024 with local compliances such as:
 - The French NF Environment intended to products which have a reduced effect on the environment.
 - The German "Blauer Engel", the objective of which is to put forward products and services which are optimized in their impact on the environment.

All LCA's are carried out by Steelcase, according to ISO 14044, together with the ENSAM of Chambéry - France (Ecole Nationale Supérieure des Arts et Métiers). They are in a second stage - just like any environmental declaration (EPD - according to ISO 14025) - critically reviewed by the Institute for Product Development (IPU) - Denmark.

From end of life... to second life

With the aim to help its customers to find environmentally responsible ways to manage their products at the end of their original use, the company has set up the **Steelcase Environmental Partnership Program** which is the industry's most comprehensive one intended to educate and support customers with environmentally responsible after-use-strategies for their Steelcase furniture.

Together with its dealers' network, recyclers, resellers and non non-profit agencies, Steelcase can provide each local customer with the most environmentally responsible solution: from recycling and resale to donation or even refurbishing.

The Think conscience

One of the most relevant examples of the Steelcase eco-design approach is Think™, “a chair with a brain and a conscience”. Unveiled in 2004, this product balances between both the users’s and the environment needs and was designed to be able to measure and minimize its lifelong impact on the environment.

Comprised of a mix of steel (up to 70% recycled), aluminium (up to 100% recycled), zinc (up to 5% recycled) and polyester (made from recycled materials), Think is made of 45% recycled materials. At the end of its life, the chair can easily be disassembled, without tool, in less than 5 minutes. Moreover, the product is almost entirely recyclable: 99% of its materials can be easily recycled.

Finally, just like for any other Steelcase seat products, the Think chair is delivered in an eco-smart packaging featuring 30% less volume than the previous ones.

In 2004, The Think chair was awarded the 1st Eco-product for sustainable development by the French Ministry of Ecology and Sustainable Development. A year later, Think became the first office furniture product in the world to receive the McDonough Braungart Design Chemistry's (MBDC) new Cradle-to-Cradle™ Product Certification.



Universal Storage re-eco-birth

Considered as a best-seller with more than 1,7 millions units sold to more than 8,000 customers worldwide since 1992, the Universal Storage™ cupboard will as from September 2007 benefit from several new improvements not only from a design and robustness point of view but also in term of sustainability. The LCA process intended to set the stages for improvement resulted into a new eco-designed product characterized by a dramatic decrease of its environmental impact at every single step of its life cycle:

Materials

- The product and the packaging are made of 30% of recycled materials
- Universal Storage is now equipped with PP tambours (replacing the PVC ones) in order to comply with "NF Environment" certification
- The wooden components made in Marlenheim are PEFC labelled
- Paper and packaging use water based inks without solvent

Production

- The plant in Marlenheim is certified ISO 14001
- Powder-coat painting is VOC-free and free of heavy metals

Transport

Minimization of both packaging volume and weight

Use

During the use stage of the product - the longest stage of the life cycle - no relevant environmental impacts occur.

End of life

- The new product is 99% recyclable by weight whereas both cardboard and plastics used for packaging are 100 % recyclable
- Universal storage is modular and easy to disassemble using normal hand tools. It contains only few different materials making sorting for recycling easy
- Plastic parts are labelled for recycling
- Universal storage can be integrated into the Steelcase Environmental Partnership Program designed to ensure environmentally responsible after use strategies for their furniture.